



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/560,246	12/12/2005	Katsuhiko Kamimura	Q76153	1481
23373	7590	11/28/2007		
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			EXAMINER FIORITO, JAMES	
			ART UNIT 1793	PAPER NUMBER
			MAIL DATE 11/28/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/560,246

Applicant(s)

KAMIMURA ET AL.

Examiner

James A. Fiorito

Art Unit

1793

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/05</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 4-6 and 8 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1, 4-6 and 8 the limitations within the parenthesis are indefinite because it is unclear if they are required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-23 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kamimura US 2005/0182172.

Kamimura teaches a process of making particulate alumina (Abstract). The method heat treats a mixture of alumina, aluminum hydroxide, ammonium chloride and a halogen compound other than ammonium chloride or boron compound and then disintegrating the heat-treated product (Paragraphs 41-43). The average particle size of the alumina made from this method is between 3 and 6 microns (Claim 1). The alumina can be combined with resins to make thermal conductive materials (Paragraph 54) for electronic devices (Paragraph 60).

Claims 1-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0276321 in view Shibusawa US 2003/0125418.

EP '321 teaches a process of making particulate alumina (Abstract). The method heat treats a mixture of alumina, alumina hydrate, at least one halogen compound other than a boron compound and then disintegrating the heat-treated product (Abstract). The average particle size of the alumina made from this method is between 5 and 35 microns (Abstract). The alumina can be combined with resins to make sealing materials (Abstract) for electronic devices (Abstract).

EP '321 does not expressly state that one of the halogen compounds is ammonium chloride.

Shibusawa teaches a process of making particulate alumina (Abstract). The particulate alumina is made by heat treating aluminum hydroxide with ammonium chloride (Paragraph 58).

At the time of invention it would have been obvious to a person of ordinary skill in the art to form the process of EP '321 to include the halogen compound if ammonium chloride in view of the teaching of Shibusawa. The suggestion or motivation for doing so would have been to provide a halogen compound required by the process of EP '321. Also, to provide a halide compound that does not contain fluoride (Shibusawa, Paragraph 58).

Claims 1-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 02/098796 in view Shibusawa US 2003/0125418.

WO '796 teaches a process of making particulate alumina (Abstract). The method heat treats a mixture of alumina, alumina hydrate, at least one halogen compound other and a boron compound and then disintegrating the heat-treated product (Abstract). The average particle size of the alumina made from this method is between 5 and 35 microns (Abstract). The alumina can be combined with resins to make sealing materials for electronic devices (Pages 16-17).

WO '796 does not expressly state that one of the halogen compounds is ammonium chloride.

Shibusawa teaches a process of making particulate alumina (Abstract). The particulate alumina is made by heat treating aluminum hydroxide with ammonium chloride (Paragraph 58).

At the time of invention it would have been obvious to a person of ordinary skill in the art to form the process of WO '796 to include the halogen compound if ammonium chloride in view of the teaching of Shibusawa. The suggestion or motivation for doing so would have been to provide a halogen compound required by the process of WO '796. Also, to provide a halide compound that does not contain fluoride (Shibusawa, Paragraph 58).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Fiorito whose telephone number is (571)272-7426. The examiner can normally be reached on 9am - 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on (571) 272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number:
10/560,246
Art Unit: 1793

Page 6

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

James Fiorito
AU 1754

JF

Wayne A. Langel
WAYNE A. LANGEL
PRIMARY EXAMINER